



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/766,939

01/30/2004

Fumito Nariyuki

FS-F03228-01

4131

37398

7590

04/07/2005

TAIYO CORPORATION
2111 JEFFERSON DAVIS HIGHWAY
#412, NORTH
ARLINGTON, VA 22202

EXAMINER

CHEA, THORL

ART UNIT

PAPER NUMBER

1752

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/766,939

Applicant(s)

NARIYUKI, FUMITO

Examiner

Thorl Chea

Art Unit

1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-20 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 01302004.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is responsive to the filing of this instant application; claims 1-20 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 15, 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Uytterhoeven et al (US Patent No. 6,143,488). See column 16, Table 2 wherein the photothermographic material containing silver iodide and the phthalazine compound. Silver halide range from 80 mole silver iodide to pure silver iodide. The phthalazine compound has been known as development accelerator. The composition of the material of the claimed invention encompasses the scope of the material taught in Uytterhoeven et al. Therefore, the invention lacks novelty.]

Art Unit: 1752

The limitation such as "the material is thermally developed within a developing time 1-12 second" fails to further differentiate the composition of the claimed material and that of the prior art since it is related to the process of developing material. The limitation such as "the material is thermally developed within a developing time 1-12 second" fails to further differentiate the composition of the claimed material and that of the prior art since it is related to the process of developing material.

5. Claims 15-20 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Toya et al (US Patent No. 5,998,126). See silver iodobromide in column 26 which contains 0.1 to 40 mole % silver iodide; the grains size in the abstract from 0.01 to 0.1 micron; the reducing agent such as a bisphenol in column 22, lines 20-25; the mercapto disulfide in column 22, lines 33-67 which added for the purpose of retarding or accelerating development to control development and improving sensitivity; and the halogen substituted organic compound in column 19, lines 35-39. The silver halide taught in Toya et al encompasses the scope of 40 mole % . Therefore, the Toya et al anticipates the claimed invention. Alternatively, it would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the silver iodide within the scope taught therein with an expectation of achieving a highly useful material.

6. Claims 19, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toya et al (US Patent No. 5,998,126) as applied to claims 15-20 above, and further in view of Matsumoto et al (US Patent No. 5,958,668) and Toya et al (US Patent No. 5,656,419) . The polyhalogenate compound and the reducing agent in claim 19, 20 have been known in the art such as disclosed in Matsumoto et al in column 18 and column 2, formula a and Toya et al (US Patent No.

Art Unit: 1752

5,656,419). It would have been obvious to the worker or ordinary skill in the art at the time the invention was made to use the known polyhalogenate compound and the reducing agents taught in Matsumoto et al and Toya et al to improve the fogging property of the material of Toya et al (US Patent No. 5,998,126) , and thereby provide a material as claimed.

7. Claims 1-4, 15 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Siga et al (US Patent No. 4,332,889). See Siga in column 6, lines 43-68 which discloses a heat developable material containing silver bromiodide wherein the molar ratio of silver iodide to silver bromide is more preferably 50/50 to 95/5. The material is exposed and developed at temperature of 90 to 150 degree C within the range of 1 to about 30 second. Siga et al exemplify the heat development at temperature about 120 °C within 5 second. See column 15, lines 1-20 and column 16, lines 25-37. Siga discloses the material containing silver iodide and the process thereof within the time claimed in the present claimed invention. Therefore, Siga et al anticipate the claimed invention. Alternatively it would have been obvious to the worker of ordinary skill in the art at time the invention was made to use silver iodide and processing time within the scope taught therein with an expectation of achieving a useful image.

8. Claims 5-14, 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siga et al as applied to claims 1-4, 15 above, and further in view of Matsumoto et al (US Patent No. 5,958,668), Toya et al (US Patent No. 5,656,419), and Toya et al (5,998,126). The polyhalogenate compound and the reducing agent in claim 19, 20 have been known in the art such as disclosed in Matsumoto et al in column 18 and column 2, formula a and Toya et al (US Patent No. 5,656,419). Toya et al (5,998,126) discloses the use of laser having wavelength from

Art Unit: 1752

300 nm to 700 nm to expose a photothermographic material and the use of silver halide having grains size of 0.01 to 0.1 micron to provide a photothermographic material for suppressing the interference fringes. See column 2, lines 1-25. It would have been obvious to use known additive such as polyhalogenate compound, a bisphenol reducing agent and silver halide having fine grain taught in Matsumoto and Toya et al with a reasonable expectation of achieving a material with low fog and less interference fringe, and thereby to provide an invention as claimed. The ultra-high contrast agent such as presented in claim 10 have been conventionally use in the art such as hydrazine compound, and the use of this agent would have been found prima facie obvious to the worker of ordinary skill in the art.

9. Claims 15-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Yoshioka (US 2003/0235794A1). See Yoshika pages 49, claims 1-2, 10; abstract; pages 21-22, formula I-1 to I-18, and page 27, [0178]. The limitation such as “the material is thermally developed within a developing time 1-12 second” fails to further differentiate the composition of the claimed material and that of the prior art since it is related to the process of developing material.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

10. Claims 15-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Fukui et al (US 2003/0207216). See page 55-57, claims 1-16; pages 33-35, compound H, H-1 to H-34;

Art Unit: 1752

page 24, formula in [0273]. The limitation such as “the material is thermally developed within a developing time 1-12 second” fails to further differentiate the composition of the claimed material and that of the prior art since it is related to the process of developing material.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

11. Claims 15-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Ohzeki et al (US 2003/0194659). See pages 70-72, claims 1-18; page 53, formula in [0276]. The limitation such as “the material is thermally developed within a developing time 1-12 second” fails to further differentiate the composition of the claimed material and that of the prior art since it is related to the process of developing material.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

12. Claims 15-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Ohzeki (US 2004/0038161). See pages 59-61, claims 1-20; page 38, reducing agent in [0450]. The limitation

Art Unit: 1752

such as “the material is thermally developed within a developing time 1-12 second” fails to further differentiate the composition of the claimed material and that of the prior art since it is related to the process of developing material.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

13. Claims 15-20 are rejected under 35 U.S.C. 102(a) as being anticipated by EP 1276007A1 (EP'007). See page 74, claim 1-7; page 5, [0020] to [0023]; page 13, formula [00126]; page 25, formula [H]. EP'007 discloses a material having composition as claimed. Therefore, the invention as claimed lacks novelty. The limitation such as “the material is thermally developed within a developing time 1-12 second” fails to further differentiate the composition of the claimed material and that of the prior art since it is related to the process of developing material.

14. Claims 15-20 are rejected under 35 U.S.C. 102(a) as being anticipated by EP 1276006A1. (EP'006). See page 14, [0122] to [0130]; page 17, [0164] page 27, [0214]. EP'006 discloses a material having composition as claimed. Therefore, the invention as claimed lacks novelty. The limitation such as “the material is thermally developed within a developing time 1-12 second” fails to further differentiate the composition of the claimed material and that of the prior art since it is related to the process of developing material.

Art Unit: 1752

15. Claims 1-14 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over EP 1276007A1 (EP'007). See page 74, claim 1-7; page 5, [0020] to [0023]; page 13, formula [00126]; page 25, formula [H]. On page 32, [0096], [0097], it is disclosed that the development time is preferably from 1 to 60 seconds and especially from 7 to 15 second. EP'007 discloses a material having composition as claimed, and the most preferred time of development encompasses the time claimed in the present claimed process. Accordingly, the invention as claimed lacks novelty. Alternatively, it would have been obvious to select the time in combination of temperature of 80 to 250 deg. C taught in EP'007 to provide a process as claimed.

Double Patenting

16. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

17. Claim 15 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 of copending Application No. 10/403,006. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the claim wholly encompasses the scope of the claim in the copending application.

Art Unit: 1752

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

18. Claims 15, 19 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 10 of copending Application No. 10/456,629. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the claim wholly encompasses the scope of the claim in the copending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

19. Claim 15-20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 10/238,611. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the claim wholly encompasses the scope of the claim in the copending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

20. Claim 15-20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 10/635,486. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the claim wholly encompasses the scope of the claim in the copending application.

Art Unit: 1752

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion


21. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

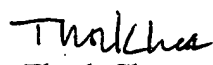
22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (571) 272-1328. The examiner can normally be reached on 9 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (571)272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tchea 
March 30, 2005


Thorl Chea
Primary Examiner
Art Unit 1752